

experience and knowledge in flying the terrain of these countries, and obtained opportunities to spread Axis propaganda and doctrine without interference. At the same time, many airplanes of Axis make were sold, which helped build up the aircraft production capacity of the Axis countries at home.

In uncovering the plot of the Nazis to dominate the world, one must keep constantly in mind that they have long since recognized the fact that airplanes have annihilated distances and that the barriers of sea and land do not restrict movement by air.

NAVIGATIONAL AIDS

The matter of lighted airways and radio beams can be dismissed at once by the observation that neither exists in the Latin American countries. It is doubtful whether either lighted airways or radio beam courses for most sections of South American airways can ever be developed, for two reasons: The first is, the enormous distances which must be traversed, and the large initial cost of installing these aids. The second reason is the ruggedness of the terrain over vast areas which would make the installation and maintenance of these aids a task of astronomical proportions. Finally, such aids would require the use of electric current, which is not available over vast uninhabited areas.

Let it be observed, also, that it is doubtful, indeed, whether weather reporting service, as we know it in the United States, can ever be developed in any great degree in many of the Latin American countries. This obtains for several reasons. In the first place, the governments of many Latin American republics do very little by way of weather observation and weather reporting. Secondly, since electric power is not available in wide areas, it is obvious that a teletype service as we know it today, cannot be installed. It is imperative, therefore, that lines operating from the United States to South and Central America must build up a very substantial and capable weather-reporting service of their own, for the benefit and security of air commerce. International air lines from the United States to the South American Continent are fully cognizant of this fact, and have already taken steps to build up a capable and independent weather service. A considerable number of meteorologists are already in their employ, and they are making effort to develop that type of observation, forecasting, and reporting which will keep every flight constantly advised of the development of weather conditions.

Repeated inquiry by members of the committee elicited the information that little or no exchange of weather information is maintained between ships at sea and shore stations of air lines. This is particularly true on the Pacific coast. It is common knowledge that many of our most adverse and disastrous weather conditions are generated over water, and if a better and more coordinated weather service from ship to land stations in the Atlantic, the Caribbean, and the Pacific were devised, it would serve to forewarn not only air operations over sea, but air operations on land, of weather disturbances that are moving toward shore. This, too, would be of material benefit for land operations in the coastal sections of the United States where weather is frequently a disturbing factor to air commerce.

AIRPORTS AND LANDING STRIPS

The adequacy of airports and landing strips in Latin-American countries is of extraordinary importance, first, because of the mountains and rugged terrain, and secondly, because of the difficulty in developing alternate landing fields in sufficient number and of adequate size to provide that margin of safety which the committee deems essential.

A brief recital of airports and airport conditions as the committee found them is as follows:

1. *San Juan, P. R.*—At San Juan, a new airport is in process of completion which will be a combined military, naval, and civil airport. It will be adequate in size, it will be lighted, and will be equipped with all necessary facilities conducive to safety.
2. *Port of Spain, Trinidad.*—At Port of Spain, it need only be observed that the airport is being improved at the present time. Runways are entirely too short, the airport is without lighting facilities although this is not essential where night flying does not obtain. Runways should be longer and additional runways should be installed particularly for four-motored operation.
3. *Belém, Brazil.*—At Belém, which is the northern terminus of the short route across Brazil to Rio de Janeiro, two runways, neither of which is hard-surfaced, are available for landing at the present time. They are 500 feet wide and approximately 4,000 feet long. No lighted runways are available at Belém.
4. *Rio de Janeiro.*—At Rio de Janeiro, the Santos Dumont airport has been constructed close to the heart of the city, at the very edge of the bay. There are no runways, but landing is made on hard and acceptable turf. This field was constructed by means of filling in a portion of the bay. It should be enlarged for maximum safety.
5. *Buenos Aires.*—At Buenos Aires several airports are available from the standpoint of obstructions and surrounding hazards, the are entirely satisfactory, but should be enlarged. A greater area required for complete safety. Runways are not available, but the conditions in all seasons of the year are quite good. Lighting is not available.
6. *Montevideo, Uruguay.*—While Montevideo is off the international airways, yet it is fair to assume that sooner or later some international operation from the United States will include Montevideo. A new airport is being constructed in close proximity to the city. Present airport facilities are extremely limited, and it is doubtful whether twin-motored plane, such as is normally employed, can safely operate into the present Montevideo airport.
7. The journey from Buenos Aires across the Andes to Santiago Chile, embraces two intervening let-downs. One of these is at Cordoba and the other at Mendoza, both in Argentina. The airport at Cordoba is adequate in size and entirely safe. It is being gradually extended because the Argentine Republic conducts many military operations at Cordoba. These, of necessity, require an adequate airport, which can be used for both civil and military operations with complete safety. This airport is, however, not lighted.
8. *Mendoza.*—At Mendoza, which lies at the eastern base of the Andes Mountains, the airport is being improved at the present time. It is adequate in size, and while runways are not surfaced and

not be for some time to come, it is the belief of the committee that it is entirely safe for planes of all sizes. Here, again, no lighting facilities are available for night operation.

9. *Santiago, Chile*.—Landing facilities at Santiago are reasonably good. They could be improved. The airport could be enlarged and lighting facilities should be installed. The airport lies in close proximity to the peaks of the Andes. This offers the possibility of adverse weather conditions, low ceilings, and limited visibility during a considerable portion of the year. It is therefore imperative, in the interest of safety, that the most modern airport facilities be installed and maintained. Antofagasta and Arica, Chile, provide fueling stops between Santiago and Lima. The airports are hardly adequate.

10. *Lima, Peru*.—At Lima, facilities seem entirely inadequate as to size. There are no serious hazards or obstructions. Lighting facilities are not available. Surfaced runways should probably be installed as time goes on, because it is our observation that in the rainy season the turf becomes quite soft and constitutes a moderate hazard.

11. The flight from Santiago, Chile, to Guayaquil, Ecuador, and points north, is made over a rugged terrain, and for 3,000 miles along the Pacific shelf. Alternate airports over this rugged area constitute no particular problem where the flight continues along the coast line for the very good reason that hard-packed sand without obstructions can be found at many spots for emergency landings, except that there are no facilities for refueling available.

12. *Arequipa, Peru*.—The airport at Arequipa admits of some difficulty of approach, since the course takes its way in and around high terrain before one can make the approach to this port. It is reasonably satisfactory, and improvements are going forward.

13. *Guayaquil, Ecuador, and Cali, Colombia*.—At Guayaquil and at Cali the approaches to the airport offer no particular difficulty or hazard. The terrain is quite flat, and the airport facilities are reasonably good.

14. *Bogotá, Colombia*.—The airport at Bogotá is at an elevation of 8,600 feet and lies in the midst of surrounding mountains which attain an altitude of many thousand feet over the field. Letting down and taking off at this airport offers considerable difficulty under low ceilings, and runways need to be extended.

15. *Barranquilla, Colombia*.—At Barranquilla, which is on the coast of the Caribbean, the terrain is quite flat, the approach is without difficulty, the facilities offer no hazard or danger. A very extensive United States defense improvement project is under way at the Barranquilla airport at the present time, and it will be one of the very best, when completed. At the present time it is unlighted.

16. *Cristobal and Balboa, C. Z.*—Airports at Cristobal and Balboa in the Canal Zone are of course extensively used for military purposes, and airport facilities are therefore being improved constantly in line with the best practice of our own War Department. It should be observed, however, that at Balboa the approach is a bit difficult, because of hills of considerable height which are in direct line with the prevailing wind. For the most part, landings and take-offs are in one direction with hills of substantial elevation at either end. This situation may call for some improvement.

17. The flight from the Canal Zone to Guatemala City is approximately 7 hours, and operates over Costa Rica, Nicaragua, Honduras, El Salvador, and Guatemala. It might be said generally that the airports in the Central American republics on the international line of flight, with the exception of the airport at Guatemala City, offer no particular difficulty or hazard. For the most part they are adequate in size. None, however, is lighted. None is equipped with runways. From observation, the condition of the turf seemed satisfactory and without peril to safe landing. It should be observed, however, at this point, that as larger planes are placed in use for this and other operations in South and Central America, these airports will doubtless have to be enlarged. The airport at Guatemala City is equipped with a runway and is located in the center of a surrounding bank of mountains, reaching altitudes which vary from 10,000 to 15,000 feet. The Guatemalan airport offers considerable difficulty in adverse weather, in view of the fact that no alternate landing fields are near. Assuming a weather situation which closes in to cause a low ceiling and diminished visibility, this airport can very conceivably cause difficulty.

18. The next leg of the flight operates from Guatemala City to Mexico City, and continues through Guatemala and the southwest portion of Mexico. The lower portion of Mexico is equipped with some alternate landing fields which, while limited in size, appear adequate for emergency landings. At Mexico City improvements are under way at the present time, and it is fair to expect that the airport in the capital of Mexico will be one of the best from the standpoint of size and all other facilities.

OBSERVATIONS

Surveys have been made and a corps of engineers and contractors have been sent to South American countries for immediate construction of a series of landing fields. A number of them are located along the northeast coast of South America and will be placed in positions which are important to the United States from the strategic standpoint.

A question now arises, if it is assumed that airports in Central and South America are in some instances not adequate to the requirements which will be imposed by the use of larger planes in the near future. It should be remembered that while the United States has been spend-

ing hundreds of millions of dollars for airport improvement, it is not so easy for South American republics to make vast outlays of funds for this purpose. It may be that the United States Government should, in some way, lend a helping hand in the development of such airports. This could be justified both from the standpoint of the benefits to be derived in the field of civil aviation, as well as the benefits which accrue to defense solidarity for this country and the hemisphere. Such a program for airport improvement would no doubt have to be covered by treaty so that the rights for a long time to come, as between the United States and the Latin American republics, with respect to both ownership and use of such airports, could be clearly and equitably resolved.

SECTION 2

A. PARTIAL SUMMARY OF OTHER INFORMATION RECEIVED BY THE COMMITTEE IN LATIN AMERICA

The committee should indicate that in the course of its discussions with our diplomatic and commercial representatives, our military and naval attachés, and with the officials of the various republics of Latin America, the questions of national defense, hemisphere defense, and hemisphere solidarity were very much to the fore, as international operation of commercial air lines is so closely linked with these questions.

It is, of course, common knowledge that for a long period of time air lines which have been dominated by the interests of some unfriendly and potentially hostile powers have been operating in various parts of South America. One can point out, for instance, the so-called Sedta line in the Republic of Colombia, which began as a German operation in 1920. One can point out also the operation of the Sedta line in Ecuador. The largest foreign operation, however, in South America is that of the Condor line, which first began in 1927 in Brazil and which has continued without interruption from that day to this, not only in Brazil, but in other South American republics as well.

This condition first engaged the attention of the United States Government, early in the first year of the present World War. It was obvious to any reasonable person that the operation of foreign-dominated air lines in Peru, Ecuador, Bolivia, Colombia, Brazil, and other South American republics, and particularly in that area which lies adjacent to the Panama Canal, could not be regarded as other than inimical to the best interest and security of the United States and South America. It is quite manifest that the development of civil air-line operations in adequate degree between the United States and the Latin American republics would constitute a long stride toward unified hemisphere defense. It would involve the training of flight personnel who are entirely familiar with South America, the development of weather observation, forecasting, and training observers, in a time of crisis, would not only serve civil aviation, but mutual-defense aviation as well.

Moreover, the increased expansion of United States air-line activities on international lines in South America, plus such aid and assistance

as this country can render in the development of civil aviation within the various republics of South and Central America, under their own supervision and control, will automatically eliminate the air activities of hostile powers and bring these two continents into closer relationship.

The reader of this report should be admonished at this point that the material which follows is of a rather delicate and confidential nature. It is, however, intended for the information of Members of Congress so that they may be adequately apprised of the extent of Nazi organization and Nazi activity in various countries of Latin America. In all of those countries there is a strong awareness of the danger that threatens from the subversive activities of Axis Powers including the closely knit military or semimilitary organizations known to exist. Governmental action has been taken to curb them and many thoughtful Latin Americans are on the alert to recognize and counteract Nazi, Fascist, and Falangist influence. But the subversive forces are strong, and their continuance has a very direct and harmful effect upon inter-American aviation.

A. THE ARGENTINE REPUBLIC

The Argentine Republic: One can but indicate certain highlights and effects, for otherwise the recital would be too long for a report. The items which follow, however, should prove sufficiently persuasive because they were obtained from authoritative sources. There are 2,200 agents of the German Gestapo now operating in the city of Buenos Aires. There is reason to believe that a large contingent of storm troopers has been organized and that secret drilling is now in progress. Buenos Aires has a German population which exceed 250,000. It has been indicated to the committee that the Italian population is even larger. It is known that the German Embassy, and German agents have been subsidizing newspapers, radio, movies and magazines, in order to keep the Nazi story constantly before the people of the Argentine and impress upon them superiority of the Nazi philosophy. It is known that in a single month, under the tutelage of the German Embassy, more than 150 pieces of propaganda literature have been issued in Buenos Aires. The committee has been reliably advised that Buenos Aires, which is a city of more than 2,000,000 people, has been divided into 56 districts, with 1 cells in each district, all of which are carefully policed and supervised by the Nazi organization. It is known that efforts have been made to induce an international airline based in the United States to carry into the United States whole quantities of films, books, and pamphlet for the purpose of showing the Nazi story of present world condition and to indicate British atrocities. The committee has reason to believe that an incipient revolt in the Argentine Air Corps was inspired by Nazi agents, and was actually hatched at a cafe in Buenos Aires known as Dese's Cafe.

At the present time the Argentine training planes consist for the most part of 70 Focke-Wulf planes of German design, which are manufactured at Cordoba, Argentina. It is quite obvious that with German training planes in the Argentine air force, the German influence will continue to persist. The committee knows that the German Embassy in Buenos Aires operates its own printing plant, and the

only recently it printed the speeches delivered by a United States Senator and by Charles A. Lindbergh, compiled these speeches in a green brochure, and gave them wide distribution in Argentina to impress people there with the fact that disunity exists in the United States. The committee knows that the newspaper *El Pampero* is definitely subsidized, and that one of the first gestures of this newspaper on the arrival of the committee was to remark in a very cynical fashion about the presence and the activities of the committee in Argentina. The committee knows, also, that the immunity of the diplomatic pouch has definitely been violated, and that on one occasion a diplomatic pouch from Germany, which weighed 500 pounds, was seized in Argentina by members of an investigating committee of the Argentine Congress, and was found to contain a complete short-wave broadcasting unit.

German propaganda and organizational activities are carried on on a self-sustaining basis. The Gestapo agents fix quotas and levy contributions on every Nazi and every German in South America on the basis of ability to pay. It is known also that the international Italian air line, known as Lati, has been repeatedly carrying shipments of barium, platinum, and adrenalin from South America to Europe. These items, as is so generally known, are all critical defense items. An intelligence report which members of the committee had opportunity to examine, will indicate that there are 90,000 active Nazis operating in Buenos Aires, and that they have now infiltrated into the trade union movement and into the charitable organizations of Buenos Aires. There is reason to believe, also, that the Nazis have perfected plans for the sabotaging of utilities in the city of Buenos Aires, and that in a crisis they could probably establish an operating base in Argentina and cause considerable difficulty.

B. REPUBLIC OF PERU

In the Republic of Peru it is definitely known from the records that there are more than 22,000 registered Japanese in the city of Lima, and there is reason to believe that the number exceeds 30,000. The committee had opportunity to examine and walk through "Little Tokyo" in Lima, and visually verified this fact. The Nazis are very active in the Republic of Peru. When recently United States bombing planes were denied to Peru, there was considerable agitation and hostility and it was the signal for the German legation in Lima to stage a celebration in honor of the event and to undertake an aggravation of any hostile feeling which arose between Peru and the United States. It should be pointed out that Peru has a long and exposed coastline, and that its navy is inadequate. Peru is rich in oil, copper, lead, gold, silver, and many of the critical materials which Japan would urgently need to carry on a prolonged struggle. Northern Peru is the locale of the greatest copper mine in the world. Oil operations are within a stone's throw of the Pacific coast, and it would offer no great difficulty for an invading force to take over and to operate the oil fields of northern Peru. It should be said, also, that the two largest newspapers in Lima, namely *El Comercio* and *La Prensa*, appear to have definite Fascist leanings.

C. CHILE

Chile is interesting geographically because its average width is but 150 miles with a 3,700-mile coast line which extends from the middle of western South America to Cape Horn. The northern part consists in the main of extremely rugged terrain. It is very rich in high-bearing nitrates. The southern portion of Chile, around the enterprising city of Valdivia, is extremely fertile and became the objective of the Germans, many years ago. They have built up this territory over a generation to the point where, agriculturally speaking, it is the richest and most self-sufficient portion of the entire republic. There is reason to believe that storm troopers are drilling in Chile. The very best diplomats from Germany, Spain, and Italy are now coordinating their activities in Chile in order to break down the cordial relationship which has existed between Chile and the United States. Chilean Army officers, over a period of many years, have been feted, instructed and educated in Germany, and have developed an admiration for the German system. Santiago, the capital of Chile, has a newspaper subsidized by the Nazis. It is also the locale of a motion-picture theater which has been subsidized and which, along with American short features, undertakes, when available, to show Nazi shorts or war activities and the success of the Nazi machine.

The navies of the South American countries are not highly effective comparatively speaking, and one can only reasonably infer that in the over-all problem of defense the United States must at the very outset of a crisis determine that it must defend South America at sea and in the air.

D. MEXICO

In Mexico City are two newspapers, the *Excelsior* and the *Omega* which are definitely pro-Nazi. One finds widespread admiration and sympathy among Mexican Army officers for the Nazi system. It was disclosed to the committee that short-wave radio stations abound in the jungles of Mexico for direct communication with Berlin and European centers. A number of these short-wave stations have actually been confiscated by the Mexican Government at the instance of the United States officers. The committee has reason to believe that merchant vessel departures from the United States across the Atlantic have been communicated in code to Mexico City and thereby short-wave transmitted to Nazi authorities in Germany. The committee is advised that long after representations were made for the purpose of prohibiting the shipment of mercury and other critical materials from Mexico to Japan; that as much as one-half million dollars worth of mercury was transported in a single shipment from Mexico to Tokyo and labeled as scrap brass. It is believed that the German Ambassador in Mexico City is the head of the Gestapo for the North American Continent. It is known that women spies are very widely used for the purpose of procuring information of diplomatic and military value. It is also known from informal testimony given to the committee that Falangist "refugees" in substantial numbers, have arrived from Spain into Mexico and are actively a work seeking to secure from Mexico a recognition of the Franco Government in Spain.

E. COLOMBIA

In 1920 the Scafta air line first operated in the Republic of Colombia from near the capital city of Bogota to the city of Barranquilla on the coast of the Caribbean. This was a German air operation and it is known to the committee that over the years pilots were alternated frequently. It is a fair inference that there exist today in Germany perhaps more than 100 skilled military pilots who have flown the length and breadth of the Republic of Colombia and who are conversant with every square mile of its terrain. It is known also that when this air line was under German domination it was very active in photographing terrain. There is reason to believe that photographs of Colombia now repose in the military archives of Germany. It was represented to the committee by competent persons that a Japanese colony, located approximately 30 miles from the city of Cali, on the Pacific side of the Andes, has become a veritable storehouse for rifles, ammunition, pistols and hand grenades, all of which were imported under the misleading appellation of farm machinery. The 2,000-acre bean farm which serves as the obvious and ostensible excuse for the small Japanese colony, referred to above, is surrounded with a wire fence which is electrically charged. An investigation has been made to verify the actual existence of material of war in the above named locality and representations have been made to the Government of Colombia seeking the immediate confiscation of material. The committee believes that as of the date of this report nothing has been done in the matter of confiscation.

F. GUATEMALA

The Republic of Guatemala has been affectionately referred to by Adolf Hitler as the Little Reich. It is midway between Brownsville, Tex., and the Panama Canal, and is the logical let-down for planes in the ferry command, which are flown from the United States to the Panama Canal and thence east for the South Atlantic hop. There are approximately 70,000 Nazis in Guatemala. It was represented to the committee by American authorities that 60 percent of all the coffee plantations in Guatemala are owned and operated by Nazis. The committee knows that one of the leading hotels in Guatemala City is operated by a subchief of the German Gestapo, and that through the blandishment of liberal credit and a well-stocked bar, he has sought to lure Americans and American flyers to this hotel, for the purpose of eliciting information and secrets which might have some value. The committee is advised that in the German Legation at Guatemala City are no less than 14 short-wave receiving sets. In the Republic of Guatemala are about 18 serviceable airports which would accommodate bombing planes, as well as combat and other types. The committee is given to understand that 5 of the 18 airports belong to Nazis. Attached to the Nazi Legation in Guatemala City at the present time are two expert air officers from the German air force. The Gestapo is extremely active among all people of German descent and of all generations in Guatemala, and have levied contributions for the purpose of making the Nazi propaganda activities self-sustaining. The committee is advised that the Gestapo has set up its own secret court system in Guatemala, and that violators

and offenders of Nazi law, Nazi regulations, and of Nazi philosophy are tried and punished.

G. BRAZIL

Of perhaps the greatest immediate interest to our country from the standpoint of both national and hemispheric defense is the United States of Brazil. That is a vast country, in area larger than our own, but having a population only one-third as large. In considering Brazil, one should first examine its population and immediate past history.

Brazil only emerged from the rule of its emperors in 1886. It was in 1888 that slavery was abolished. Until 35 years ago, Rio de Janeiro was so unhealthy that two out of every three white immigrants died within 6 months after their arrival, and usually of the yellow fever. A young Brazilian doctor who had been trained in the United States led the fight to eradicate the yellow fever plague, first in Rio and then elsewhere in Brazil. He is rightly a national hero. Since that time the cities have become healthful places to live and have grown into splendid modern metropolises.

In recent years, industry has taken root in Brazil and notably in the great city of Sao Paulo. These industries were established by German, Italian, French, and other European nationals, or their descendants, and more recently by Japanese. Sao Paulo, in addition to being the center of the coffee and cotton industries, is a beehive of industrial activity. The State of Minas Geraes contains fabulous mines of various highly strategic metals. Rio Grande do Sul is a fine cattle country, and incidentally is the home State of Brazil's President (and benevolent dictator) Getulio Vargas, and his Foreign Minister Oswaldo Aranha (formerly Ambassador to the United States).

Most of the population of Brazil is concentrated near the sea coast, necessarily because land transportation inland (except in the Amazon Basin) is exceedingly difficult, and lateral transportation along the coast is almost impossible except by sea. It is also concentrated near the coast because the tropical jungles in the interior are exceedingly trying upon the constitution and health of the white man.

"The Amazon" is a misconception. In Brazil, "The Amazon" is called Los Rios dos Amazonas—the Rivers of the Amazon. It is not one, but a number of great rivers which join and intertwine into a main stem that is more akin to a twisted mass of grapevines than anything else. There is no central trunk stream—but rather it is an enormous mass of water moving slowly to the sea through intertwining and deep channels, separated by large island masses. It is navigable to near its headwaters in the distant mountains, which surround the great basin. It is the home of several hundred thousand persons who seldom set foot on land. Contrary to common belief, the equatorial jungle of the Amazon will not provide adequate food for the existence of any but the members of the numerous wild Indian tribes. Diets must be fortified by imported foodstuffs.

The journey from Belem do Para, the seaport of the Amazon Basin (population 300,000, 90 miles south of the equator), to Manaus, 1,000 miles westward and the center of the rubber-gathering industry (population 80,000) takes from 2 to 4 weeks by oceangoing or river steamer. That journey is accomplished in one daylight flight in a seaplane. To Benjamin Constant, another 1,000 miles, adds addi-

tional weeks to river travel, and is accomplished the second day by seaplane.

The northern rim of the Amazon Basin, extending from just back of British Guiana and Venezuela into the Province of Vichada in Colombia, is a vast plains area, flat and relatively treeless. Reports indicate that in this area, which extends to within 150 miles of Bogotá, Colombia, and 550 miles of the Panama Canal, there are areas as large as 5 by 10 miles that are perfectly flat and entirely suitable for landing the largest airplanes. Near the eastern end of this plains area is a town called Boa Vista on the Rio Branco, which contains a German monastery, a good radio station, and a Diesel electric power plant. At the western end of this area, in Colombia there are about 30 recognized airplane landing strips and an equal number of places in addition where landings can be made. It is understood by the committee that the former chief pilot of the Seadla line, a German Army Air Force reserve officer, has settled with one or more of his aides, and established an airport, in this area, possibly equipped with radio. This plains region is perhaps a thousand miles long and from 1 to 200 miles wide. It can be reached without serious difficulty by 4-foot draft river steamers of which there are many.

The bulge of Brazil is, of course, the landing and take-off point for flights to and from Africa and Europe. Here we find the now well-known cities of Natal and Recife. The former line Air France has extensive airport and radio facilities here, as has the German line Lufthansa—now used by Lati. Additional radio directional equipment is installed on the rocky island Fernando de Noronha, approximately 200 miles off-shore in the direction of Dakar, Africa. This equipment is owned by and is believed to be still in operation by Air France, which can hardly be said to have remained under purely French control.

The bulge of Brazil was not visited by this committee, but reports to it indicate that large areas here are suitable for emergency landing of aircraft, without material improvement other than might be accomplished by necessities of agricultural pursuits.

At numerous airports and strategic locations in Brazil, Axis-controlled air lines had accumulated large stocks of aviation gasoline and oil, in a number of cases far beyond any possible requirement of their commercial aviation. Through a policy instituted by the Brazilian Government, in recent months these stocks are suffering an enforced reduction to normal proportions. Just how many hidden stocks may remain is problematical, but attention is directed to this matter as well. It must be recognized, however, that there are numerous rivers emptying into the ocean along the 4,000-mile coast line of Brazil that are of sufficient depth to accommodate modest oceangoing vessel for considerable distances upstream. The delta of the Amazon is 150 miles wide, with several good channels, and the river is navigable for 1,000 miles to Manaos for ocean vessels.

There are other large flat areas, free of trees, and many places where fuel stocks might be cached nearby. These facts are receiving careful consideration and investigation, but the importance of the bulge of Brazil, from the standpoints of both commercial aviation and defense cannot be overestimated, particularly in view of the facilities now still available to, and long the property of, Axis-owned air lines.

While there is strong evidence of German efforts and influences in Brazil, and considerable organization in progress, those influences are not in such apparent strength as in some other Latin-American countries. The reason for this seems to be in the fact that the "pure Aryan blood" doctrine of the Nazis is difficult of acceptance in Brazil, presumably in view of the fact that pure Aryan blood is in the small minority only. The Portuguese, original colonists of Brazil, mixed rather freely with the African Negro slave population and admixtures of various bloods in varying proportions continue. Furthermore, Brazil as a whole is highly nationalistic and proud of its wealth and accomplishments, and while there is considerable admiration for the German war machine in military circles, there appears a real determination not to become the puppet state of any power, European or otherwise.

SECTION 3

CONCLUSIONS

1. At war's end, when the United States and other competitive nations like Great Britain, France, and Germany will be on a plane-production basis of such proportions as to impel those nations to seek outlets for plane production in the hope of averting severe dislocation and severe disemployment in the aircraft industry, it is obvious that these nations will make a competitive drive for the skyways of Latin America and transoceanic service.
2. It behooves the United States Government, its agencies which are identified with the development of civil aviation, and the aircraft manufacturers of the United States, to cooperate in a broad-gauge and comprehensive program which has for its objective the promotion of international air-line service between the United States and Latin America.
3. International air-line service, whether for tourist or business purposes, will grow in direct proportion as it is made safe and convenient.
4. Safe air-line operation from the United States to Central and South America requires planes that are of sufficient capacity and of sufficient motor power to provide convenience, speed, and the ultimate in safety over rugged and sparsely settled terrain.
5. Next to the competency of the plane, one might rate the competency of the flight personnel, and it is suggested that, in consideration of the legal restrictions which may be imposed by South American countries upon the use of flight personnel of United States citizenship, a program be initiated forthwith designed to bring ambitious young men from Latin American republics to the United States for complete and thorough training, so that they may become not only competent pilots but wed to the traditions of this hemisphere.
6. In view of the fact that South American republics have made relatively little progress in the field of weather observation, weather forecasting, and weather reporting, the matter of providing international air operations with adequate weather service should receive early and careful attention.
7. The cause of safety is not served until a plane traversing the skyways is brought safely to the land. This means airports that are

adequate in size for the larger planes which can be expected in international air line operations. Such airports must be equipped with every modern facility conducive to safety. The committee is not insensible of the fact that the budget allowances of South American countries for airport development will not permit of extensive development. It is entirely possible that, through the instrumentality of loans, a joint program can be worked out for the development of airports, which will have due regard for the sovereignty of Latin American countries. The elements of nationalism, sovereignty and independence in every case must be thoroughly recognized. The committee should observe at this point that in the making of loans there should, in every case, be some consideration so that it is not made to appear that this aid comes in the nature of a gift. For an agency of the United States to develop a program which in the slightest degree might affront the pride and sense of nationalism of our Latin American cousins might prove hurtful rather than beneficial.

8. *Night flying.*—The distance from New York City to Buenos Aires is approximately 8,500 miles, and it can be traversed by surface transportation in a period of 18 days, as compared with 87 hours elapsed time today by plane. This indicates that further improvement can be made in annihilating space by means of night flying. There is today virtually no night flying in Latin America, because airports are not adequate for the purpose, nor are they equipped with lighting and other indispensable night landing facilities. If and when night flying is undertaken, it is quite obvious that the United States must render technical and financial assistance for the purpose of installing, in the interest of safety, adequate navigational systems along international airways which may be flown at night.

9. *Foreign international air lines.*—The committee was thoroughly convinced of the necessity for supplanting by American operation, the trans-Atlantic operation of the Italian Government-owned air line "Lati", in the interest of hemispheric and national defense, and made haste to present this view to our governmental agencies concerned. The committee presented similar views concerning the German interests in the several Condor operations.

Since making these representations war has been declared between the United States and the Axis Powers, and between several Latin-American countries and those powers. These necessities above stated, immediately became imperatives. It is, therefore, absolutely imperative that our State Department, together with others in authority, be directed to complete negotiations without further delay, to the end that the Italian operation Lati be supplanted with United States operation and equipment, and that the Condor operation be scrupulously degermanized, and, furthermore, that negotiations be completed for the use of United States capital and equipment to replace German and Italian capital and equipment on all South-American air lines.

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